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Appendix A – Trail Standards and Specifications

Flathead County should develop a set of trails standards and specifications to guide all future trail construction and maintenance projects. Following are some examples from other communities in Montana that can serve as a starting point.

City of Bozeman

Bozeman's 2007 Parks, Recreation, Open Space and Trails Plan characterizes the city's trail system in five classes:

Class IA. These trails are heavily used with full access, and are designed for recreational and commuter use along major transportation corridors. These trails are designed to permit two-way traffic using an impervious surface material such as asphalt or concrete. These trails are 12 feet wide with full ADA accessibility.

Class IB. These trails are the same as Class IA trails with the exception of being 10 feet wide. These trails are typically used in interior subdivision settings where Class I trails are appropriate, but a full 12 feet width is not necessary.

Class IIA. These trails receive heavy to moderate use with a very high degree of ADA accessibility. They are intended for multiple non-motorized, recreational and commuter use. Class II trails are constructed of natural fines and are 6 feet in width.

Class IIB. These trails receive moderate use and provide moderate ADA accessibility depending on grades and/or obstacles. Construction standard is the same as Class IIA.

Class III. These trails receive moderate to low use and are typically 3 feet in width. They are either natural trails developed by use, or constructed with natural fines. ADA accessibility is extremely limited.

Class IVA. These trails are generally mowed corridors used for ski trails in winter, or occasional special activities such as cross-country running meets, and are 16 feet in width. **Class IVB.** These trails are the same as Class IVA trails with the exception that they are 10 feet in width.

Class V. These trails are used for equestrian traffic, and when constructed parallel to pedestrian trails are built with a sufficient buffer and physical barrier between them to prevent horse/pedestrian conflicts.

Gallatin County and the community of Big Sky

The following information was assembled from the Gallatin County Trails Report and Plan and the Big Sky Master Plan for Trails and Parks.

Trail Use Classification and Characteristics – (Note: These two plans use the term “trails” in a more traditional sense; shared roadway facilities such as shoulder bikeways and bike lanes are not included.) Trails are classified as to the intensity and type of use. As changes dictate, a trail may be upgraded in classification to meet new user demands.

Class I - Heavily used, generally full access, multiple non-motorized use, main corridor trails designed for recreational and commuter use. Designed to permit two-way traffic using a wide surfaced tread, or parallel treads; one surfaced and the other unsurfaced. ADA degree of access: easier.

Class II - Moderate use, multiple non-motorized use, local and connector trails designed for commuter and recreational use. Class II trails are not specifically designed for full access and may or may not be surfaced. ADA degree of access: moderate.

Class III - Low use, long distance connector trails designed primarily for recreational use by hikers and all-terrain bicycles. Trails limited to pedestrian traffic in sensitive locations, such as wetland nature education areas. Trails are designed to minimum standards striving for low maintenance and minimal disturbance to the natural setting. ADA degree of access: difficult to most difficult.

Trail Design Standards

Class I Trails

1. Single surfaced tread with a minimum width of eight feet. Parallel treads (surfaced and unsurfaced will have minimum widths of eight feet and four feet, respectively. Tread width may be reduced to 36 inches for a maximum distance of 10 feet to pass or preserve significant features such as rock formations, important vegetation, etc.
2. Tread surface will be asphalt, concrete, pavers set on concrete, wood decking, natural fines, or a well maintained compacted crushed gravel mixture meeting the aggregate specification in this appendix. The tread material including any base course will have a total minimum thickness of six inches. Wood deck planks must be run perpendicular to the direction of travel and joints must not exceed 36 inch. Planks must be securely fastened so they do not warp.
3. The minimum cleared zone will be tread width plus 2 feet to either side of the tread and 10 feet vertical.
4. Maximum sustained running grade is 5%. A 10% maximum grade is allowed for a maximum distance of 30 feet.
5. Tread will be raised above adjacent surfaces and have a 1 to 2 inch crown. Where this requirement is not possible, the tread will have a 1 to 20 cross slope and/or side ditches outside the cleared zone. Stream crossings will be over culverts or bridges. Only dips or slot-entrance drainpipe will be used for crosstread water stops.
6. Wood chips are not an acceptable tread material for Class I trails.
7. Geo-textile material as specified in this appendix will be placed beneath the tread material in poorly drained, boggy or marshy areas, or wet meadows and on any of the following soil types; clays, clayey loams, silts, silty loams, or loess.
8. Adequate visibility for safety.
9. The minimum acceptable trail easement width is 25 feet.
10. Trail entrances will be signed describing the degree of ADA access.

11. All above items may be modified to meet current ADA specifications.

Class II Trails

1. Single surfaced or unsurfaced tread, five foot minimum width. Tread width may be reduced to 32 inches for a maximum distance of 30 feet to pass or preserve significant features such as rock formations, important vegetation, etc.

2. A gravel or particulate tread surface will be a minimum of six inches thick. Native soil tread is acceptable only where the soil will allow all-weather use with minimal environmental impact. Class II trails or portions of trails designed for ADA access will be surfaced with a minimum of wood decking as described under Class I, natural fines, or with a well maintained compacted crushed gravel meeting the aggregate specifications in this appendix.

3. The minimum cleared zone will be tread width plus one foot to either side of the tread, and ten feet vertical.

4. Grades will be 15% or less. Class II trails or portions of trails designed for ADA access will have a maximum sustained running grade of 8% and a 14% maximum grade is allowed for a maximum distance 50 feet.

5. Tread will be raised above the adjacent surfaces and have a 4 inch crown. Where this requirement is not possible the tread will have a 1 to 20 cross slope and/or side ditches outside the cleared zone. Stream crossings will be over culverts or bridges. Only dips, slot-entrance drain pipe, or rubber belting will be used for cross-tread water stops.

6. Wood chips are not an acceptable tread material for Class II trails.

7. Geo-textile material as specified in this appendix will be placed beneath any gravel or particulate tread material in poorly drained, boggy or marshy areas, or wet meadows and on any of the following soil types; clays, clayey loams, silts, silty loams, or loess.

8. Adequate visibility for safety.

9. The minimum acceptable trail easement width is 25 feet.

10. Trail entrances will be signed describing the degree of ADA access.

11. All above items may be modified to meet current ADA specifications.

Class III Trails

1. Single tread of a minimum 18 inch width. Class III trails or portions of trail designed for ADA access will be a minimum width of 28 inches.

2. No surfacing is required except in erosion prone poorly drained, boggy or marshy

areas, or wet meadows.

3. Minimum cleared zone is tread width horizontally and seven feet vertically.
4. Maximum of 20% grades unless restricted by erosive soils, etc. Class III trails or portions of trails designed for ADA access will have a maximum sustained running grade of 12% and a 20% maximum grade is allowed for a maximum distance of 50'.
5. Utilize grade dips, cross sloping, and water bars to minimize erosion.
6. Blending the trail into the setting is emphasized in trail routing.
7. The minimum acceptable trail easement width is 25 feet.
8. Wood chip tread materials are acceptable when traffic is limited to pedestrian traffic in sensitive locations such as in wetland nature education areas.
9. All above items may be modified to meet current ADA specifications.

Summary Table of Trail Design Standards

Item	Class I	Class II	Class III
Level of access:	Easy	Moderate	Difficult
Tread width (minimum):	8 feet	5 feet	18 inches (ADA regulation=32 inches)
Clear width (minimum, to each side of tread):	2 feet	1 foot	1 foot
Clear height (minimum):	10 feet	10 feet	7 feet
Sustained running grade (maximum):	5%	8%	12%
Maximum grade allowed:	10%	14%	20%
For a maximum distance of:	30 feet	50 feet	50 feet
Cross slope (maximum):	3%	5%	8%
Passing space interval (maximum):	200 feet (NR)	300 feet (NR)	400 feet
Suggested rest area interval (maximum):	400 feet	900 feet	1200 feet
Trail easement width (minimum):	25 feet	25 feet	25 feet

NR = Not Required by ADA specifications

Note 1: Tread width may be reduced to evade or preserve significant trail features such as rock formations, important vegetation, or the like. However, on ADA designated trails or portions, this reduction cannot be less than 32 inches and may not extend beyond 20 feet.

Note 2: No more than 20% of the total trail length shall exceed the sustained running grade.

Note 3: When measuring for ADA specifications, the calculation of maximum grade and cross slope should be established over a 24 inch interval to correspond with the rotation of a wheelchair in that environment.

Note 4: The above items may be modified to meet current ADA specifications.

Acceptable Surface Material - The following table lists suitable surfacing materials for each trail class. However, the purpose, use, environment, and existing tread surface of a trail must also be taken into account when choosing the best material.

Material	Class I	Class II	Class III
Native:		✓	✓
Pit-run fines:	✓	✓	✓
Gravel mixture:	✓	✓	✓
Asphalt:	✓		
Concrete:	✓		
Wood decking:	✓	✓	
Base course and thickness (minimum):	6 inches	6 inches	

- Note 1: Geo-textile material will be placed beneath the surface matter in areas that are poorly drained, marshy, and generally wet. Soil types with loose silt, shale, clay, or similar unstable textures will also require this material for stabilization.
- Note 2: When wood decking is used, the planks must be run perpendicular to the direction of travel and joints must not exceed 36 inches. The planks must also be securely fastened so they do not warp or shift.
- Note 3: Surfacing materials shall be free of vegetable matter, balls of clay, frozen lumps, or other unsuitable substances.
- Note 4: No combination of shale, clay, coal, or soft particles shall exceed 3.5% by weight.
- Note 5: The material shall be evenly graded.
- Note 6: The material shall contain enough binder fines for good compaction.
- Note 7: All material shall be certified by the sponsoring company as acceptable for the proposed use under these requirements.

Trail Maintenance Standards - The intent of these maintenance standards is to maintain the trails to their design standards, for public safety, and for meeting ADA access requirements. (Note: These maintenance standards are ambitious. Some communities have found the prescribed frequency of maintenance activities excessive.)

Class I Trails

1. The clear 2 foot minimum clear zone on either side of the tread will be mowed a minimum of 3 times per year. Nominally, mowing will be done once per month in June, July or August, and in September. Late fall mowing may be needed for trails being used for skiing. Mowing times should be chosen to maximize weed control.
2. Gravel tread surfaces will be reconditioned a minimum of twice annually to reincorporate loose surface gravel, to uproot vegetation growing in the tread as an alternative to chemical control, to reshape the tread surface for drainage, and to regrade and recompact the tread surface for ADA access and public safety.
3. Noxious weed control in the trail corridors will be by hand pulling, cutting, burning or biological control. Chemical control will be used only as the last resort.
4. Class I trails will be inspected at least quarterly to insure timely maintenance of the tread surface, erosion controls, signage, fencing, drainage, and of any structural features such as benches, bridges, etc. Inspections should be made at critical times of the seasons, such as during thaws, chinooks, or heavy runoff periods.

Class II Trails

1. The clear 1 foot minimum clear zone on either side of the tread will be mowed a minimum of 3 times per year. Nominally, mowing will be done once per month in June, July or August, and in September. Late fall mowing may be needed for trails being used for skiing. Mowing times should be chosen to maximize weed control.
2. Gravel tread surfaces will be reconditioned a minimum of biannually to reincorporate loose surface gravel, to uproot vegetation growing in the tread as an alternative to chemical control, to reshape the tread surface for drainage, and to regrade and recompact the tread surface for public safety and ADA access.
3. Noxious weed control in the trail corridors will be by hand pulling, cutting, burning, or biological control. Chemical control will be used only as -the last resort.
4. Class II trails will be inspected at least quarterly to insure timely maintenance of the tread surface, erosion controls, signage, fencing, drainage, and of any structural features such as benches, bridges, etc. Inspections should be made at critical times of the seasons, such as during thaws, chinooks, or heavy runoff periods.

Class III Trails

1. Vegetation growing in the tread or overhanging the edge of the tread will be cut or

mowed twice per year at times determined to be the most beneficial for safe passage of the public.

2. Tread that has been surfaced with particulate materials (i.e. gravel, crushed brick, wood chips) will be reconditioned by replenishing the surface material and by raking as needed.

3. Erosion controls will be maintained in an effective condition.

4. Class III trails will be inspected at least twice annually to insure timely maintenance especially of the erosion controls. Inspections should be made at critical times, such as during the spring thaw or heavy runoff periods.

Trail Construction Material Specifications

1. Aggregates for Class I Trails will meet the following requirements:

- a. Aggregate surfacing materials shall be free from injurious quantities of vegetable matter, balls of clay, frozen lumps, or other extraneous matter.
- b. No combination of shale, clay, coal, or soft particles shall exceed 3.5% by weight.
- c. The material shall be evenly graded.
- d. The material shall contain enough binder fines for good compaction.
- e. The liquid limit for that portion of the fine aggregate passing the No. 40 sieve shall not exceed 25 and the plasticity index shall be between 5 and 10.
- f. A tolerance of 5%, by weight, up to the next above specified gradation (for example: 1/2 inch for 3/8 inch max) will be allowed.
- g. Upon approval of the Engineer, small quantities of gravel which contain oversize material may be placed on the trail surface. The gravel so placed shall then be mechanically worked (raked) to remove the oversize rock which shall be gathered and removed from the project or used for erosion control.
- h. All material shall be furnished with a written certification from an approved testing laboratory stating that the material proposed for use meets or exceeds the requirements of these specifications.
- i. The material will meet the following gradations

Percentage by Weight Passing Square Mesh Sieves

Passing	Crushed top surfacing	Crushed base course	Pit run gravel base course
3 inch sieve			
2 inch sieve			100%
1 inch sieve		100 %	
1/2 inch sieve			
3/8 inch sieve	100 %		
No. 4 sieve	50-80 %	25-60%	
No. 10 sieve	35-70%		
No. 200 sieve	8-15 %	6-12%	10-15%

2. Asphalt for Class I Trails: (to be completed as needed)
3. Concrete for Class I Trails: (to be completed as needed)
4. Acceptable aggregate or particulate surfacing materials for Class II and Class III Trails are:
 - a. Preferred - "Natural fines", "3/8 inch minus with binder fines".
 - b. Acceptable - Well graded road mix with a maximum particle size of 1/2 inch and a maximum 15% by weight of fines passing the No. 200 sieve.
 - Railroad cinders.
 - Crushed brick with a maximum particle size of 1/4 inch.
 - Old existing gravel roads and railway beds with greater than 3/4 inch oversize removed from the surface.
 - c. Special - Wood chips are acceptable for only Class III trails limited to pedestrian traffic in sensitive locations, such as in wetland nature education areas.
5. Geo-textiles for all Classes of Trails:
 - a. The preferred geo-textile is a continuous filament non-woven needle-punched engineering geo-fabric.
 - b. An acceptable geo-textile is a woven engineering geo-fabric.
 - c. Minimum geo-textile requirements:
 Property Non-woven Woven

Mass per unit area (ASTM D-3776) 4 oz/sqyd N/A

Thickness (ASTM D-1777) 60 mils N/A

Flow Rate (ASTM D-449) 100 gpm/sqft 40 gpm/sqft

Puncture Resistance (ASTM D-3787) 50 lbs 70 lbs

Trapezoid Tear Strength (ASTM D-4533) 40 lbs 45 lbs

Grab Tensile Elongation (ASTM D-4632) 100 lbs@60% 140 lbs@15%

Specifications for Pedestrian Bridges (ADA compliant)

1. Minimum width shall be 36 inches for bridges 20 feet or less in length and 72 inches if length exceeds 20 feet (to allow for wheelchair turnaround and passing).
2. If height of bridge is more than 30 inches (from bridge deck to bottom of watercourse), a protective rail is required.
3. Rails are to be 42 inches high, with at least one midrail at 34 inches, to be used as a handrail.
4. Rails must have a protective barrier, with spacing being no more than 4 inches at any point.
5. If bridge does not require a rail, it must have a 4 inch high curb on both sides along entire length of bridge.
6. All bridges to be installed on public lands must be certified by a licensed civil or structural engineer.
7. Deck should be constructed of durable, weather-resilient, slip-resistant material.
8. Deck of bridge shall not exceed a 12 to 1 slope along any part of its length.
9. The deck surface between the ends of the bridge shall not vary from a flat plane by more than a 1/2 inch.
10. Cross slope of the deck shall not exceed 3%.
11. The vertical approach at either end of a bridge shall not exceed 1 inch.

Specifications for Class II trails (Construction handout)

1. Trail width shall be a minimum of 60 inches (5 feet)
2. Trail bed must be excavated 4 to 6 inches deep, prior to installation of tread mix
3. Geo-textile weed mat is optional, depending onto what the tread mix is applied (see #7, Class I and II Trail Design Standards above)
4. Tread mix shall be 3/8th inch minus gravel (natural fines) with 15% clay binder
5. If mix does not contain enough clay binder, additional clay must be mixed in
6. Tread mix must be rolled and compacted after installation, maintaining 4 inch crown (If moisture content is not adequate for compaction, water should be added prior to rolling and compacting)
7. All damage to surrounding features and/or vegetation shall be reclaimed immediately
8. Encroaching weeds, due to trail construction, shall be treated and controlled for a minimum of 2 years after trail section is completed.

Appendix B – Pathway and Bike Lane Diagrams

From American Association of State Highway and Transportation Officials (AASHTO), Guide for the Development of Bicycle Facilities, 1999

Typical Pathway Cross Section

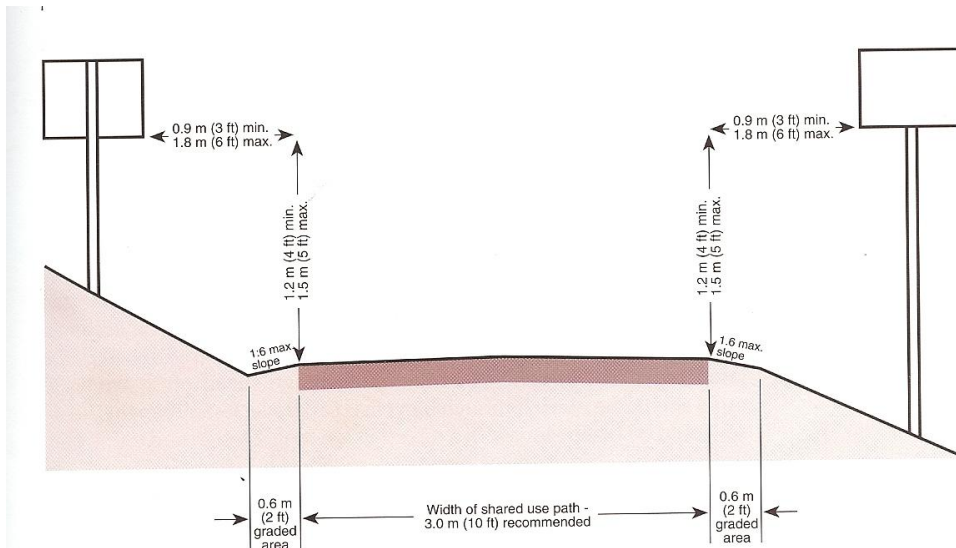
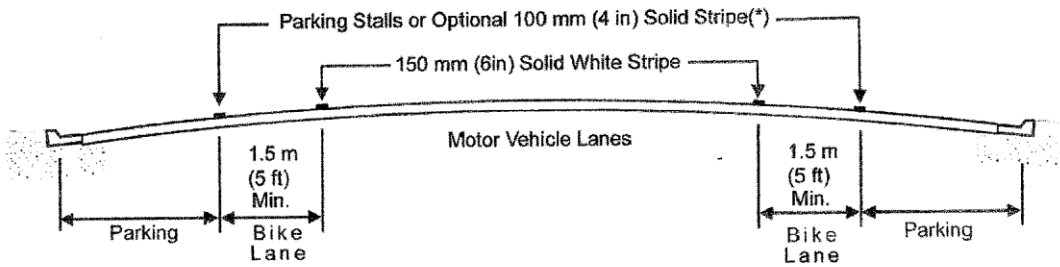


Figure 17. Cross Section of Two-Way Shared Use Path on Separated Right-of-Way

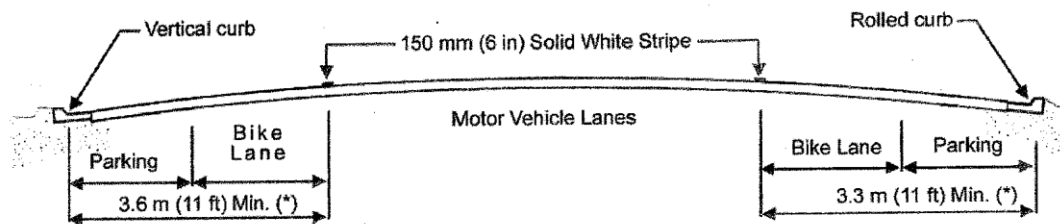
Design
Shared Use Paths

Typical Bike Lane Cross Sections



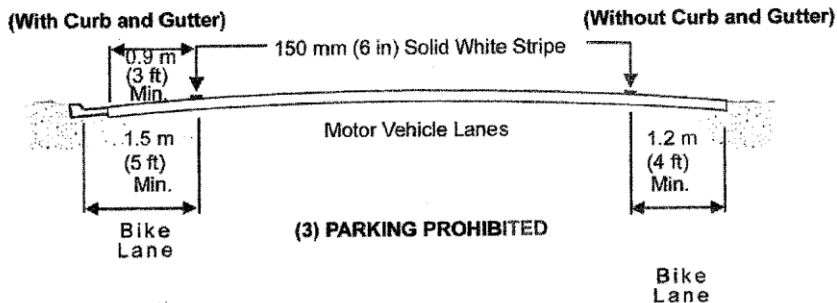
* The optional solid white stripe may be advisable where stalls are unnecessary (because parking is light) but there is concern that motorists may misconstrue the bike lane to be a traffic lane.

(1) ON-STREET PARKING

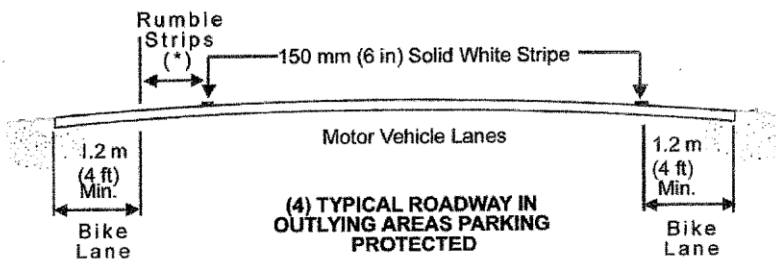


*3.9 m (13 ft) is recommended where there is substantial parking or turnover of parked cars is high (e.g. commercial areas).

(2) PARKING PERMITTED WITHOUT PARKING STRIPE OR STALL



(3) PARKING PROHIBITED



*If rumble strips exist there should be 1.2 m (4 ft) minimum from the rumble strips to the outside edge of the shoulder.

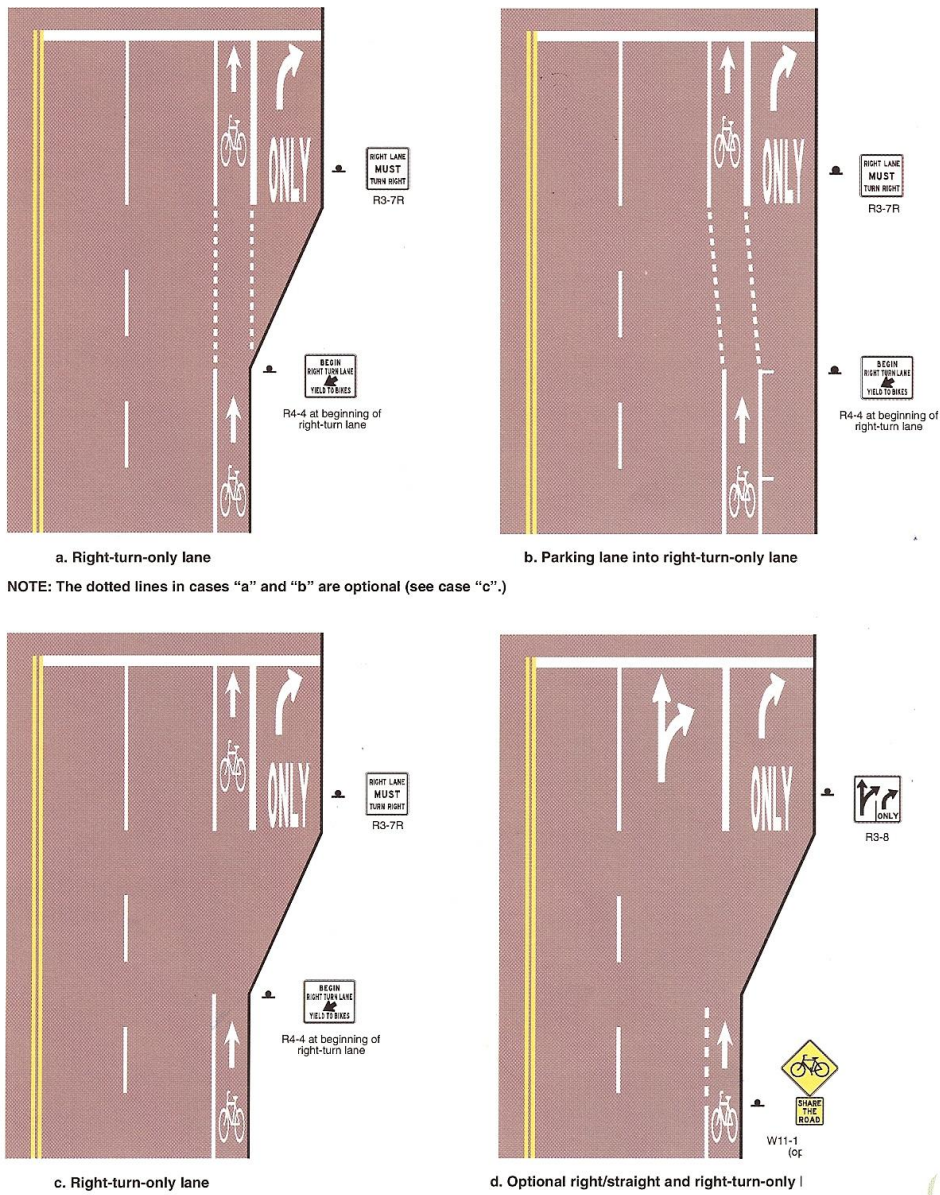


Figure 11. Bike Lanes Approaching Right-Turn-Only Lanes



Design
Bike Lanes

Appendix C - Trail Evaluation Form

This form is intended to provide some consistency to the evaluation of trail proposals by compelling reviewers to carefully consider a standard list of relevant criteria and considerations. The “Trail Functions” section is used to rate the comparative value to the county’s trail network of each trail proposal. The nine criteria are weighted to reflect their relative importance. The “Administrative Considerations” section is used to help understand the real world issues, opportunities and constraints presented by each trail proposal. A narrative should be provided to address each consideration.

This form should be shared with trail proponents so their proposals can fully address all relevant evaluation factors.

Criteria	Weight 1-3	Value High = 2 Low = 1 None = 0	Score
Trail Functions			
Services existing and/or anticipated demand	3		
Provides needed safety improvement	3		
Provides access to schools	3		
Connects communities with parks/public lands	3		
Creates a grade-separated pathway	3		
Connects existing trail segments (enhances continuity)	2		
Provides connection between communities	2		
Provides trailhead facilities	1		
Provides a quality recreational experience	1		
Total Score			

Administrative Considerations
Does the proposal represent a judicious use of limited financial resources?
Does the proposal secure access in imminent danger of being lost?
Has funding and/or in-kind donations (land, labor, equipment) been pledged or secured?
Have necessary easements and/or rights-of-way been secured?
Has a commitment been made for an adequate maintenance mechanism?
Describe any anticipated construction challenges.
Will there be an impact on natural resources or landscape features?
Describe any expressed local support and/or opposition to the proposed project.

Appendix D – Trail Corridors, Trailheads, and Signage

Trail Corridors - Trails along independent rights-of-way are to be routed so as to maintain a natural setting, to avoid unnecessary disturbance to private landowners adjacent to the trail and to preserve wildlife habitat and important vegetation. Public lands and rights-of-way should be used whenever possible. Dedication of public trail easements can be accomplished through the subdivision review process. While the minimum acceptable trail easement is 25 feet, the more practical and desirable easement width is 35 feet.

Road Crossings - Pathways should cross roads at points of good visibility, perpendicular to the roadway (if possible). Crossings in most cases should be accompanied by signed and striped crosswalks. At high-traffic road crossings, tunnels are preferred to at-grade crossings or pedestrian overpasses.

Trailheads - Trailheads should be provided at major access sites for pathways and backcountry trails. Trailhead parking must be sized to adequately handle user needs. Trailheads should be signed, at a minimum, with the trail name, use restrictions, and “Good Neighbor” information.

Signage - Standard and consistent signs should be used throughout the trail system to designate trailheads, allowable trail uses, directional information, and educational/historical information. Pathways should be signed at road crossings and all other public access points with signs that define uses and restrictions. Bike lanes, shoulder bikeways, and shared roadways/bike routes should be signed in accordance with the Federal Highway Administration’s Manual of Uniform Traffic Control Devices¹. Signage at the entrances to backcountry trails should describe uses, trail surface conditions, managing entity contact information, and limitations, such as ADA degree of access.

ADA Accessibility - Trails should be built in compliance with the Americans with Disabilities Act whenever possible, recognizing that this may not be possible in many backcountry situations. Designation of trails as non-motorized is not meant to include restrictions on motorized wheelchairs and other mechanical means of transportation by users with disabilities.

Resource Protection - Maintaining healthy buffers adjacent to streams is an effective and inexpensive way to protect watersheds. Buffers maintain functioning riparian vegetation and floodplains, protect water quality, stabilize stream banks, provide wildlife habitat and open space, and reduce landowner and taxpayer costs to mitigate flood damage. Appropriate buffer width varies with the stream and the specific resource protection objectives.

Any trail near a waterway should be constructed so as not to adversely affect water quality or riparian vegetation or impair the natural processes of the waterway, such as meandering and spring flooding. While it is usually desirable to locate trails in preserved corridors to create greenways, trails should not be routed continuously along stream banks, depriving wildlife of undisturbed habitat and risking bank erosion. Rather, they generally should be set back from the river, providing sporadic access points to the water either by the use of spurs or by occasionally routing the main trail to the bank.

¹ *Manual of Uniform Traffic Control Devices (MUTCD)*, Federal Highway Administration, National Advisory Committee on Uniform Traffic Control Devices, 1988.

Trails can be used to improve degraded habitat by consolidating social trails into one well designed pathway. Trails through natural environments are wonderful places to enjoy time with dogs, but they must not be permitted to chase, harass or kill wildlife or livestock. Dog waste disposal stations should be provided at trailheads that receive significant use by dogs and their people.

Landowner Relations - Respect for private property rights is essential. Access will not be allowed or provided from a pathway onto private property without the permission of the landowner. On any trail that is constructed along a pre-existing corridor currently used for a different purpose (such as a power line), the pre-existing rights held by adjacent landowners will continue to be honored. Signs will be posted reminding users to “Please respect private property by staying on the trail”. Montana has enacted a law (70-16-302, MCA) to protect landowners from liability who allow the public onto their property free of charge for recreational purposes.

Trails have been shown to reduce crime and increase property values. Well-planned trails attract families, local residents, tourists, and other responsible people whose presence on the trails serves as a neighborhood watch. Access to trails is one of the most desirable amenities that homebuyers seek, and the value of most properties is enhanced by being near a trail.

Appendix E – Complete Streets and Community Walkability

Every trip begins and ends with walking, and walking remains the cheapest form of transport for most people. Walking leads to more social interaction, physical fitness, diminished crime and other social problems. Walkable communities are more-livable communities and lead to whole, happy, healthy lives for the people who live in them. A diverse coalition of national organizations is working to assist communities in developing “Complete Streets”.

Central to the Complete Streets philosophy is the idea that the public right-of-way is for public use, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities, not just for those who own motor vehicles. A complete street is one that is designed and operated to safely accommodate all of these users.

Ingredients that may be found on a complete street include: sidewalks, bike lanes, plenty of crosswalks, wide shoulders, medians, bus lanes, raised crosswalks, audible pedestrian signals, sidewalk bulb-outs, and more. Narrower vehicle lanes are sometimes part of the complete streets picture. Planners and engineers have been finding that putting roads on a “diet” does slow traffic, but when combined with other remedies such as roundabouts and boulevards with medians, roads actually carry vehicles more efficiently. A complete street in a rural area will look quite different from a complete street in a highly urban area. But both are designed to balance safety and convenience for everyone using the road.

Some of the benefits of “complete streets” include²:

Complete streets improve safety. Measures that design the street with pedestrians in mind all improve safety. One study found that designing for pedestrian travel by installing raised medians and redesigning intersections and sidewalks reduced pedestrian risk by 28%. Complete streets also improve safety indirectly, by increasing the number of people bicycling and walking. A recently published international study found that as the number and portion of people bicycling and walking increases, deaths and injuries decline.

Complete streets encourage more walking and bicycling. Public health experts are encouraging walking and bicycling as a response to the obesity epidemic, and complete streets can help. One study found that 43 percent of people with safe places to walk within 10 minutes of home met recommended activity levels, while just 27% of those without safe places to walk were active enough. Residents are 65% more likely to walk in a neighborhood with sidewalks. A study in Toronto documented a 23% increase in bicycle traffic after the installation of a bicycle lane.

Complete streets can help ease transportation woes. Streets that provide non-motorized travel choices can give people the option to avoid traffic jams, and increase the overall capacity of the transportation network.

Complete streets help children. Streets that provide room for bicycling and walking help children get physical activity and gain independence. More children walk to school where there are sidewalks. And children who have and use safe walking and bicycling routes have a more positive view of their neighborhood. Safe Routes to School programs, gaining in popularity across the country, will benefit from complete streets policies that help turn all routes into safe routes.

² From the “Complete the Streets” website at <http://www.completestreets.org>

Complete Streets are good for air quality. Air quality in our urban areas is poor and linked to increases in asthma and other illnesses. Yet if each resident of an American community of 100,000 replaced one car trip with one bike trip just once a month, it would cut carbon dioxide (CO₂) emissions by 3,764 tons of per year in the community. Complete streets allow this to happen more easily.

Complete streets make fiscal sense. Integrating sidewalks, bike lanes, transit amenities, and safe crossings into the initial design of a project spares the expense of retrofits later. Jeff Morales, the Director of Caltrans when the state of California adopted its complete streets policy in 2001, said, "By fully considering the needs of all non-motorized travelers (pedestrians, bicyclists, and persons with disabilities) early in the life of a project, the costs associated with including facilities for these travelers are minimized."

Walkable Communities³, a group organized for the purpose of helping communities become more walkable and pedestrian friendly, suggests the following traffic calming devices for improving the experience in the central business district and other high-traffic areas:

Curb extensions. Curb extensions (bulb-outs) are great tools for slowing speeds at intersections and midblock locations. They are often used in combination with other tools, such as refuge islands, or as part of a modified intersection. They are very helpful to inset parking, meet ADA requirements, and reduce pedestrian crossing times and distances. They can also create small parks or areas for sidewalk commerce.

Refuge islands. Refuge islands slow traffic in three ways. They visually tighten the road, slow turning speeds, and help create narrow channels (when used with curb extensions) to minimize pedestrian/auto conflicts.

Raised intersections. Raised intersections slow traffic and increase pedestrian safety in three ways. They create an attractive, distinctive shape. They create a vertical deflection forcing a slow speed approach. Third, they highlight the area as a pedestrian space.

Roundabouts. Roundabouts and mini-roundabouts are the most effective traffic calming feature. These horizontal deflection tools lower speeds to 15-20 mph, shorten pedestrian crossings to 12 – 14 feet at a time, decrease injury crashes about 90%, reduce noise and pollution, and increase area property values.

Other helpful street amenities include street trees, lighting, seating, bicycle racks, signage and markers for visitors.

Communities should plan for, design, construct, operate, and maintain appropriate facilities for pedestrians, bicyclists, transit vehicles and riders, children, the elderly, and people with disabilities in all road construction, maintenance activities, and retrofit or reconstruction projects except in the following unusual or extraordinary circumstances:

1. Bicyclists and pedestrians are prohibited by law from using the facility. In this case, alternative facilities and accommodations shall be provided within the same transportation corridor.
2. Where the existing right-of-way does not allow for the accommodation of all users. In this case alternatives shall be explored such as the use of revised travel lane configurations, paved shoulders, signage, traffic calming, education or

³ <http://www.walkable.org/>

enforcement to accommodate pedestrians, cyclists, transit, and persons with disabilities.

3. The cost of establishing bikeways or walkways or other accommodations would be disproportionate to the need, particularly if alternative facilities are available within a reasonable walking and/or bicycling distance.

4. Where there is no need, including future need.

5. Where application of Complete Streets principles is unnecessary or inappropriate because it would be contrary to public safety.

Appendix F – Conservation Easements⁴

Conservation easements place certain restrictions on pieces of land that are intended to protect the resources and existing uses associated with the property. Easements are voluntary, legally binding agreements that are initiated by the property owner. They are often designed by the landowner to exclude certain activities on private land, such as commercial development or residential subdivisions. Essentially, the private landowner voluntarily gives up certain rights granted through ownership - the right to develop or occupy the lands in specific ways, for example – or agrees to manage the land for specified purposes. In exchange for giving up these rights, the owner usually receives tax benefits associated with the reduced value of the land.

Property owners may use conservation easements to save the values that are present on their lands. They may want to secure the existing land and agricultural uses for their family, maintain open space, or protect wildlife habitat.

Some landowners are attracted to conservation easements as an alternative to selling the land, or as a result of their role in tax and estate planning. Conservation easements can qualify as a charitable deduction for federal and state income taxes and can lower federal inheritance and estate taxes. Because the federal Internal Revenue Service bases estate taxes on the potential value of the property, (i.e. developed property) rather than the current value of the property, agricultural land often presents a tax burden for those who want to pass along their land to future generations. Conservation easements can lower the development potential for land, and thus the estate tax value.

Typically, easements are made in collaboration with local government agencies, land trusts, or other nonprofit organizations that are designed to "hold" easements. There are at least a dozen land trust organizations in Montana, which are typically nonprofit organizations. The Montana Department of Fish, Wildlife and Parks and the U.S. Fish and Wildlife Service also have easement programs.

⁴ From Montana Conservation Voters Education Fund August, 2004 publication

Appendix G – Funding, Resources and References

FEDERAL and STATE GRANT SOURCES

The Community Transportation Enhancement Program (CTEP) is a program within SAFETEA-LU, the federal highway program. SAFETEA-LU stands for Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users, and was enacted in 2005. (Previous highway bills were called ISTEA, the Intermodal Surface Transportation Efficiency Act, enacted in 1991, and TEA-21, the Transportation Equity Act for the 21st Century, enacted in 1998). The largest program within the federal highway bill is the Surface Transportation Program (STP) at \$32.5 billion nationwide over 5 years. Ten percent of this money is dedicated to Transportation Enhancements. Montana is unique in the US in that all TE funds are distributed directly from the MT Department of Transportation to each Montana county, incorporated city and tribe based on population figures provided by the U.S. Bureau of the Census. Local jurisdictions make their own decisions on allocating CTEP funds.

CTEP funds are dedicated for bicycle and pedestrian activities and preservation. This is a Federal Aid reimbursement program that reimburses project costs at approximately 87%. To be eligible for CTEP funds, a project must relate to surface transportation and be one of 12 identified activities. These activities are pedestrian and bicycle facilities, pedestrian and bicycle safety and educational activities, acquisition of scenic or historic easements and sites, scenic or historic highway programs including tourist and welcome centers, landscaping and scenic beautification, historic preservation, rehabilitation and operation of historic transportation buildings, conversion of abandoned railway corridors to trails, inventory control and removal of outdoor advertising, archaeological planning and research, environmental mitigation of runoff pollution and provision of wildlife connectivity, and establishment of transportation museums. Ross Tervo is currently the CTEP program manager and can be reached at 406-444-9209, rtervo@mt.gov. Information can be obtained at www.mdt.mt.gov/business/ctep/. The National Transportation Enhancements Clearinghouse can be found at www.enhancements.org.

The Recreational Trails Program (RTP) is another facet of the federal highway program. This program will provide \$370 million nationwide over the next 5 years.

Montana currently grants about \$600,000 each year to specific trail projects. Sponsors can request up to \$35,000 per project. These funds are derived from gasoline taxes paid by trail users, and are available for both motorized and non-motorized trail projects. A 20% match is required. Federal, state, county, sovereign Indian Nations, private non-profit associations and clubs, but not individuals are eligible. Examples of eligible projects include urban trail development near homes and work places, basic urban and backcountry trail maintenance, restoration of areas damaged by trail use, development of trailside facilities, educational and safety projects related to trails. This program encourages partnerships between private organizations and public land managers. This is a reimbursement program; project applicants are reimbursed as expenditures are documented. The required 20% match may include cash or the value of volunteer labor and donated materials. The environmental review is rigorous and preliminary work may need to be completed a year before becoming eligible to apply for a grant. The State Trails Advisory committee, comprised of trail users and agency representatives, advises FWP on expenditures of these funds.

Safe Routes to School is a dedicated source of funds within SAFETEA-LU. This program is funded at \$612 million nationwide (Montana's annual share is \$1 million) and is administered by the state. A state coordinator is mandated to oversee the program. Eligible activities include both infrastructure and non-infrastructure such as

education and promotion. Mark Keffe, the Montana Bicycle/Pedestrian coordinator, is also the interim Safe Routes to School coordinator, in Helena. The SRTS application, for December 2009, is available at: <http://www.mdt.mt.gov/pubinvolve/saferoutes/>. Two other useful websites are: <http://safety.fhwa.dot.gov/safetroutes/> and <http://bikesbelong.org>

Federal Lands Highway Funds (SAFETEA-LU) may be used to construct pedestrian walkways and bicycle transportation facilities in conjunction with roads, highways, and parkways at the discretion of the department charged with the administration of such funds.

Scenic Byways Program Funds (SAFETEA-LU) may be used to construct facilities along scenic highways for the use of pedestrians and bicyclists. <http://www.bywaysonline.org/>

Land and Water Conservation Fund provides cash grants for wildlife, park and trail projects and can be used to fund up to 50% of outdoor recreation project costs. This program is administered by the Montana Dept of Fish Wildlife and Parks and sets a limit of \$75,000 per project. Any political subdivision of the state, or sovereign Indian Nation may apply: incorporated cities or towns, counties, school districts, state agencies, and tribal governments. Eligible projects include outdoor recreation facilities such as ball fields, open space acquisition, public parks, swimming pools, skate rinks, picnic facilities and walking trails. Applicants must present local survey information that shows local citizens support for their project. An applicant must have adequate resources to operate and maintain the area after the project is complete. This is a reimbursement program. Once LWCF funds are used in development or acquisition, the entire recreational site must be managed for outdoor recreation in perpetuity. Visit <http://www.fwp.state.mt.us/parks/grants/asap>

The Rivers, Trails and Conservation Assistance Program, also known as the Rivers & Trails Program or RTCA, is the community assistance arm of the National Park Service. RTCA staff provides technical assistance to community groups and local, state, and federal government agencies so they can conserve rivers, preserve open space, and develop trails and greenways. This program does not give cash grants. www.nps.gov/rtca Gary Weiner is the Montana state program manager and can be reached at 406-587-1667 or gary_weiner@nps.gov.

Rural Community Assistance Program that is administered by the Forest Service has given cash grants to Montana communities for parks and for trails. An economic development program administered by the Forest Service can be tapped to support trails projects. Projects proposed for this funding must have economic development as their primary focus and are available for incorporated communities and unincorporated areas that are dependent on forest and natural resources, rural communities with poor economies and major Forest Service presence for many activities that enhance long term social, environmental and economic sustainability. The projects must follow on a broad scope community planning process. Grants are limited to communities heavily dependent on natural resources, or having a major Forest Service presence. Several have been given to Montana communities in recent years. Cash grants are available which consist of \$5,000 for development of community plans; \$20,000 for projects to help implement the plans and 20% of total project cost. Applications accepted annually in March.

Resource Conservation and Development grants are administered by the US Natural Resources Conservation Service. They provide 50% matching funds for recreation projects, including parks and land acquisition. The funding is available to state and local government and non-profit organizations. <http://www.wy.nrcs.usda.gov/>

State Highway Development Program is under the Montana Department of Transportation. When a trail construction project is carried out in conjunction with a state road construction or reconstruction program, the MDT may donate fill and construct the trail bed. This varies with each project. They may also allow part of the road easement to become a trail. Trail planning must occur during the state's highway planning process with at least a five year lead time.

Montana Dept. of Environmental Quality has a recycling and market development specialist who offers some insight on materials available for trails. Dusti Johnson can be reached at dujohnson@mt.gov or at (406) 841-5253.

County funding sources potentially could include parkland dedication funds, development impact fees, property taxes (general, Special Improvement District, Park Maintenance District) and bonds (general obligation or revenue). Other options for raising money that could assist in developing or administering a trails system include open space bonds, accommodations/lodging taxes, local option vehicle tax, gas and vehicle taxes, and resort taxes (if the state legislature would so enable). Rental or lease income for temporary uses such as agriculture or grazing, concessions, utility company fees for easements, use and program fees, and special events are other potential revenue sources. The county also can apply for funds from the Community Development Block Grant Program (<http://www.hud.gov/offices/cpd/communitydevelopment/programs/>), Economic Development Grants for Public Works and Development, Transportation and Community and System Preservation Program, Urban Park and Recreation Recovery Program and Safe Schools and Healthy Students Initiative.

PRIVATE INDIVIDUALS, GROUPS and VOLUNTEERS

Private individuals, families, neighborhood associations, conservation groups and service organizations often donate cash, labor, equipment, and materials for sections of trails in their communities. Special interest groups that enjoy the opportunities provided by public trails may step forward to help. These may include local running or mountain biking clubs, bird watching organizations like Audubon, the Native Plant Society, equestrian groups like the Backcountry Horsemen, disk-golf players, cross country ski clubs, kennel clubs and wildlife organizations.

In Kind Donations can often be given by local businesses by donating materials such as road base, pipe or services such as hauling and spreading dirt. Another very important contribution to any trail project is the donation or below cost sale of lands or trail easements along proposed trail routes. These donations can be used to leverage funding, and often make or break a trail project.

ORGANIZATIONS and FOUNDATIONS

Active Living Network

<http://www.activeliving.org/index.php/Funding+Opportunities/60>

The Active Living program maintains a listing of funding opportunities and the Active Living Resource Center has a downloadable "Guide to Funds for Bicycling and Pedestrian Projects" at

http://www.activelivingresources.org/funding_sources.html

Center for Disease Control

<http://www.cdc.gov/od/pgo/funding/FOAs.htm>

CDC maintains a listing of funding opportunities - some of which could support physical activity projects or programming.

National Coalition for Promoting Physical Activity

<http://www.ncppa.org/>

The National Coalition for Promoting Physical Activity's mission is to unite the strengths of public, private, and industry efforts into collaborative partnerships that inspire and empower all Americans to lead more physically active lifestyles.

Pedestrian and Bicycle Information Clearinghouse

<http://www.pedbikeinfo.org/index.htm>

The PBIC is a clearinghouse for information about health and safety, engineering, advocacy, education, enforcement and access and mobility. The PBIC serves anyone interested in pedestrian and bicycle issues, including planners, engineers, private citizens, advocates, educators, police enforcement and the health community.

National Center for Bicycling and Walking

<http://www.bikewalk.org>

The mission of the National Center for Bicycling & Walking (NCBW) is to help create bicycle-friendly and walkable communities across North America by encouraging and supporting the efforts of individuals, organizations, and agencies.

Complete Streets

<http://www.completestreets.org/>

This program does not provide funding for non-motorized transportation projects, but it is an excellent resource for the concept of properly designed and multi-use streets.

Bikes Belong

<http://bikesbelong.oli.us/Grants/GrantseekersGuide06.pdf>

This coalition is sponsored by members of the American Bicycle Industry. The mission of the Grants Program is to put more people on bicycles more often. It accepts requests for funding of up to \$10,000 for facility, capacity, and education projects.

Foundation Center

<http://foundationcenter.org/findfunders/>

Searchable database that can be used to identify and research 80,000 foundations that support physical activity projects. (Only 6% of grants are online.) This is a fee-based subscription service. "Cooperating Collections" search free at libraries in every state.

Robert Wood Johnson Foundation

<http://www.rwjf.org/applications/index.jsp>

\$370 million in grants annually for projects that "improve the health and health care of all Americans", including an emphasis on childhood obesity.

National Endowment for the Arts Fund

This fund has grants available for architecture, landscape architecture, urban design and planning, historic preservation, interior design, product and industrial design up to \$50,000.

Kellogg Foundation

<http://www.wkkf.org/default.aspx?tabid=63&ItemID=7&NtD=42&LanguageID=0>

The rural development program goal is to fund collaborative, comprehensive and inclusive approaches to rural economic development that emphasize community problem-solving, leadership development, entrepreneurship development, and delivery of human, social, and economic services.

General Mills Foundation

<http://www.generalmills.com/corporate/commitment/champions.aspx>

Champions for Healthy Kids will make 50 grants of \$10,000 each to schools and community groups with innovative programs aimed at improving the nutrition and activity habits of young people. Organizations can

design programs that they believe will work in motivating children in their community to improve nutrition and fitness behaviors.

Kaiser Permanente

<http://newsmedia.kaiserpermanente.org/kpweb/pdf/feature/092communityinvolve/brochure.pdf>

Focus areas include health care delivery issues facing disadvantaged populations and special consideration is given to activities that convene public policy leaders and develop collaborative partnerships with local, state and national organizations.

Ford Foundation

Community development grants.

Other potential grant sources include Save America's Treasures, Conservation Alliance, LL Bean Charitable Giving, LJ and Mary Skaggs Foundation, Kodak American Greenways, Cinnabar Foundation, Balance Energy Bars, Northwest Energy, Oracle Corporate Giving Program, National Tree Trust, National Trails Fund, Americorps, Healthy People 2010.

ONLINE GRANT DIRECTORIES

Catalogue of Federal Domestic Assistance (programs):

http://www.gsa.gov/Portal/gsa/ep/contentView.do?programID+8897 &channeled=1309&ooiid=10111&contented=12885&pageTypeID=8204&contentType=GSA_BASIC &programPage=%252Fep%252FgsaBasic.jsp&P=MVS:

Catalogue of Federal Domestic Assistance (grants):

<http://12.46.245.173/cfda/cfda/html>

New England Environmental Finance Center

<http://efc.muskie.usm.maine.edu/tools.html>

RTC's Trails and Greenways Clearinghouse

<http://www.trailsandgreenways.org/resources/highlights/online/default.asp>.

STATE CONTACTS

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Bicycle and Pedestrian Coordinator

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MT FWP

Non-Motorized Trails Coordinator

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Health and Physical Activity Connections

Montana Nutrition and Physical Activity Program

Cathy Costakis
Phone: (406) 994-5734
Email: costakis@montana.edu

REFERENCE MATERIALS

American Association of State Highway and Transportation Officials (AASHTO). 1999. *Guide for the Development of Bicycle Facilities*.

Federal Highway Administration, National Advisory Committee on Uniform Traffic Control Devices. 1988. *Manual of Uniform Traffic Control Devices*. Washington, D.C.: U.S. Printing Office.

Flink, C., Kristine Olka, & Robert M. Searns; Rails to Trails Conservancy. 2001. *Trails for the Twenty-First Century, Second Edition: Planning, Design, and Management Manual for Multi-Use Trails*. Washington D.C: Island Press.

Webber, Pete. 2007. *Managing Mountain Biking: IMBA's Guide to Providing Great Riding*. Boulder, CO: Publication Printers Corp.

Felton, Vernon. 2004. *Trail Solutions: IMBA's Guide to Building Sweet Single-track*. Boulder, CO: Johnson Printing.

Volunteers for Outdoor Colorado. 2002. *VOC Crew Leaders Manual*.

Birkby, Robert C. 1996. *Lightly on the Land, the SCA Trail-Building and Maintenance Manual*. Washington: The Mountaineers.

National Park Service. 1992. *Mountain Trails Management: An Outline*. Park City, Utah. 1992. *Trails Supplement to the Comprehensive Master Plan, Trails Master Plan Update, Policies and Guidelines for Trail Construction, Construction Standards and Maps*.

Searnes, Robert M. *Crusher Fines Trail Development: A Primer*. Urban Edges, Inc.

Sonoran Institute. 2004. *Prosperity in the 21st Century West: The Role of Protected Public Lands*.

Appendix H – Flathead County Growth Policy References to Trails

Chapter 6: Transportation

Goal

G.25: Identify and support alternative modes of transportation.

Policies

P.25.1 Encourage developments that provide functional alternative modes of travel such as bicycle and pedestrian paths.

P.25.2 Identify and prioritize areas for a predictable regional and interconnected bicycle path network and require pedestrian/bicycle easements on both sides of identified county roads. Encourage developments that aid and/or connect to this network.

P.25.5 Determine and prioritize areas for bike path easement acquisition and construction, prioritize use of funds, guide grant applications, identify roads that should have bicycle lanes, determine maintenance funding mechanisms, and set county-wide bicycle path/lane construction standards.

Part 3: Bicycle and Pedestrian Paths in Flathead County

Bicycle and pedestrian paths offer a range of benefits. Bicycle lanes, when added to road rebuilding plans, are a viable alternative to potentially costly separated paths. The Bicycle Transportation Committee called for in this document could define paths and lanes, as well as provide suggestions for places where each would be more desirable. Families, groups and individuals use the paths in Flathead County to actively recreate. There is a significant health and fitness benefit as most recreation activities on pedestrian/bike paths involve exercise. It is common to see families biking or walking on the Great Northern trail or a group of cyclists cruising down the Somers trail. Serving as transportation corridors, these paths encourage pedestrian and bicycle commuting thus reducing traffic congestion and fuel consumption. Safety is another community benefit because pedestrian/bicycle paths are separated from automobiles. Most roads in the county were constructed specifically for motor vehicle use. Pedestrian/bike paths are separated from roads and are an attractive alternative to vehicles. Unincorporated Flathead County has about 28 miles of pedestrian/bike paths, which are primarily used for recreation activities and secondarily for commuting to work.

The paths are identified in Table 6.6.

(Note: Mileage information is dated)

Table 6.6:

Existing Pedestrian/Bike Paths in Unincorporated areas of Flathead County

NAME	LOCATION	DISTANCE (miles)
Somers Rails to Trails	US Hwy 93	5.0
Edgerton Bike Path	Whitefish Stage Rd	2.0
Swan River Bike Path	Bigfork	1.5
Great Northern Rails to Trails	Kalispell	6.0
Helena Flats Bike Path	Helena Flats	2.9
Farm-to-Market Bike Path	West Valley	1.8
Swan Valley School Path	Bigfork	1.3
Somers Beach Path	US Hwy 93	1.2
Hungry Horse Bike Path	US Hwy 93	4.0

Lone Pine Path	Kalispell	1.6
Grand Avenue Walk	Bigfork	0.3
Fairmont-Egan Pedestrian path	Bigfork	0.5
		28.1 miles

Pedestrian and Bicycle Path Projections

Flathead County constructs an average of two miles of pedestrian/bike paths per year. Proposed project sponsors compete for available federal Community Transportation Enhancement Program (CTEP) funds, which are administered by the MDT and passed through to local agencies. Approved county projects awaiting CTEP funding include a 1.5 mile pedestrian path expansion in Evergreen, a two mile bike expansion in Kila and a two mile path along Willow Glen, to be known as the Sam Bibler Commemorative Trail. A more comprehensive pedestrian/bicycle path program is warranted in the county. Existing and proposed commuter and recreational path corridors are shown on Map 6.4. This map should be considered very dynamic. This growth policy recommends the creation of a county Bicycle Transportation Advisory Committee to plan a coordinated bicycle trail and path network, prioritize easement acquisition, set construction standards and determine funding mechanisms. This should enable the county to help such a network become a reality.

Chapter 4: Parks and Recreation

Introduction

Public parks, trails and recreation offer countless values to Flathead County residents and visitors. Public parks, trails and open space provide the opportunity to be physically active and fit. Having close to home access to quality places to recreate is one of the most important factors in determining whether people are active and will stay that way.

Goal

G.18: To accelerate the development process for park, trail, and open space infrastructure to meet the challenges of community growth and development.

Policies

P.18.1 Acquisition of park and leisure facility sites should occur now to serve the future needs of the county, particularly water-based parks which provide public access to lakes, rivers and streams.

P.18.2 With the exception of water based parks, subdivision park requirements should be used to create and/or fund dedicated park sites of optimal size of no less than five acres to accommodate operation and maintenance costs.

P.18.3 Existing parks and recreational facilities should be operated and maintained in a quality condition for use by the general public.

P.18.4 Develop strategies to fund, operate, and maintain new parks and recreational facilities.

P.18.5 Prepare a comprehensive Parks and Recreation Master Plan to guide the expansion of the park system to meet the needs and expectations of the growing public. Utilize the work completed by the LRPTF of identifying bike path routes and the work of the three cities and rails to trails.

P.18.6 Flathead County should preserve and increase recreational access to public lands and waterways by procuring necessary land, easements, or rights of way.

P.18.7 Create a Flathead County Bicycle Transportation Advisory Committee to determine and prioritize areas for bike path easement acquisition and construction, prioritize use of funds, guide grant applications, identify roads that should have bicycle lanes, determine maintenance funding mechanisms, and set county-wide bicycle path/lane construction standards.

Goal

G.19 To create partnerships with common interest groups and the people within our community.

Policies

P.19.1 Encourage parks, planning, maintenance and development coordination with other local jurisdictions, state, and federal agencies.

P.19.2 Participate with developing partnerships, community civic groups and organizations, private sector building and development industry, and others interested in parks and recreation activities.

P.19.3 Support “pocket parks” which are owned and maintained by Home Owner groups and Associations.

P.19.4 Riparian buffers should be recognized for their recreational value and their ability to protect the quality of water along major streams and rivers in the County to enhance recreational opportunities, protect the quality of water (reduce erosion; surface runoff containing pesticides, fertilizers, etc.; stream bank depredation/defoliation; etc.) and their ability to protect the natural aesthetics of waterways.

P.19.5 Whenever possible, County parks should be developed in conjunction with public or private schools.

P.19.6 Develop standards, procedures, and requirements for the preparation, review, and adoption of neighborhood and subdivision park plans.

Goal

G.20 Maintain and/or increase the current level of service for park facilities and recreation services in Flathead County relative to population growth and public demands and expectations.

Policies

P.20.1 Provide new lands and indoor/outdoor recreation and park facilities outlined in the comprehensive Parks and Recreation Master Plan to keep pace with expanding population and demand.

P.20.2 Maintain level of recreation services by providing innovative programs geared towards a diverse demographic of county residents (children, adults, seniors, etc.).

Appendix I – Montana Statutes Regarding Bicycles and Parkland Dedication Requirements

TITLE 76. LAND RESOURCES AND USE LOCAL REGULATION OF SUBDIVISIONS

CHAPTER 3.

Part 6. Local Review Procedure

76-3-621. Park dedication requirement. (1) Except as provided in [76-3-509](#) or subsections (2), (3), and (6) through (8) of this section, a subdivider shall dedicate to the governing body a cash or land donation equal to:

- (a) 11% of the area of the land proposed to be subdivided into parcels of one-half acre or smaller;
- (b) 7.5% of the area of the land proposed to be subdivided into parcels larger than one-half acre and not larger than 1 acre;
- (c) 5% of the area of the land proposed to be subdivided into parcels larger than 1 acre and not larger than 3 acres; and
- (d) 2.5% of the area of the land proposed to be subdivided into parcels larger than 3 acres and not larger than 5 acres.

(2) When a subdivision is located totally within an area for which density requirements have been adopted pursuant to a growth policy under chapter 1 or pursuant to zoning regulations under chapter 2, the governing body may establish park dedication requirements based on the community need for parks and the development densities identified in the growth policy or regulations. Park dedication requirements established under this subsection are in lieu of those provided in subsection (1) and may not exceed 0.03 acres per dwelling unit.

- (3) A park dedication may not be required for:
- (a) a minor subdivision;
 - (b) land proposed for subdivision into parcels larger than 5 acres;
 - (c) subdivision into parcels that are all nonresidential;
 - (d) a subdivision in which parcels are not created, except when that subdivision provides permanent multiple spaces for recreational camping vehicles, mobile homes, or condominiums; or
 - (e) a subdivision in which only one additional parcel is created.

(4) The governing body, in consultation with the subdivider and the planning board or park board that has jurisdiction, may determine suitable locations for parks and playgrounds and, giving due weight and consideration to the expressed preference of the subdivider, may determine whether the park dedication must be a land donation, cash donation, or a combination of both. When a combination of land donation and cash donation is required, the cash donation may not exceed the proportional amount not covered by the land donation.

(5) (a) In accordance with the provisions of subsections (5)(b) and (5)(c), the governing body shall use the dedicated money or land for development, acquisition, or maintenance of parks to serve the subdivision.

(b) The governing body may use the dedicated money to acquire, develop, or maintain, within its jurisdiction, parks or recreational areas or for the purchase of public open space or conservation easements only if:

- (i) the park, recreational area, open space, or conservation easement is within a reasonably close proximity to the proposed subdivision; and
- (ii) the governing body has formally adopted a park plan that establishes the needs and procedures for use of the money.

(c) The governing body may not use more than 50% of the dedicated money for park maintenance.

(6) The local governing body shall waive the park dedication requirement if:

- (a) (i) the preliminary plat provides for a planned unit development or other development with land

permanently set aside for park and recreational uses sufficient to meet the needs of the persons who will ultimately reside in the development; and

(ii) the area of the land and any improvements set aside for park and recreational purposes equals or exceeds the area of the dedication required under subsection (1);

(b) (i) the preliminary plat provides long-term protection of critical wildlife habitat; cultural, historical, or natural resources; agricultural interests; or aesthetic values; and

(ii) the area of the land proposed to be subdivided, by virtue of providing long-term protection provided for in subsection (6)(b)(i), is reduced by an amount equal to or exceeding the area of the dedication required under subsection (1);

(c) the area of the land proposed to be subdivided, by virtue of a combination of the provisions of subsections (6)(a) and (6)(b), is reduced by an amount equal to or exceeding the area of the dedication required under subsection (1); or

(d) (i) the subdivider provides for land outside of the subdivision to be set aside for park and recreational uses sufficient to meet the needs of the persons who will ultimately reside in the subdivision; and

(ii) the area of the land and any improvements set aside for park and recreational uses equals or exceeds the area of dedication required under subsection (1).

(7) The local governing body may waive the park dedication requirement if:

(a) the subdivider provides land outside the subdivision that affords long-term protection of critical wildlife habitat, cultural, historical, or natural resources, agricultural interests, or aesthetic values; and

(b) the area of the land to be subject to long-term protection, as provided in subsection (7)(a), equals or exceeds the area of the dedication required under subsection (1).

(8) Subject to the approval of the local governing body and acceptance by the school district trustees, a subdivider may dedicate a land donation provided in subsection (1) to a school district, adequate to be used for school facilities or buildings.

(9) For the purposes of this section:

(a) "cash donation" is the fair market value of the unsubdivided, unimproved land; and

(b) "dwelling unit" means a residential structure in which a person or persons reside.

(10) A land donation under this section may be inside or outside of the subdivision.

History: En. Sec. 9, Ch. 468, L. 1995; amd. Sec. 27, Ch. 582, L. 1999; amd. Sec. 8, Ch. 348, L. 2001; amd. Sec. 1, Ch. 469, L. 2003; amd. Sec. 2, Ch. 333, L. 2005.

TITLE 61. MOTOR VEHICLES

CHAPTER 8. TRAFFIC REGULATION

Part 6. Bicycle Traffic

61-8-102. Uniformity of interpretation -- definitions. (1) Interpretation of this chapter in this state must be as consistent as possible with the interpretation of similar laws in other states. (2) As used in this chapter, unless the context requires otherwise, the following definitions apply:

(a) "Authorized emergency vehicle" means a vehicle of a governmental fire agency organized under Title 7, chapter 33, an ambulance, and an emergency vehicle designated or authorized by the department.

(b) "Bicycle" means:

(i) a vehicle propelled solely by human power upon which any person may ride and that has two tandem wheels and a seat height of more than 25 inches from the ground when the seat is raised to its highest position, except scooters and similar devices; or

(ii) a vehicle equipped with two or three wheels, foot pedals to permit muscular propulsion, and an independent power source providing a maximum of 2 brake horsepower. If a combustion engine is used, the maximum piston or rotor displacement may not exceed 3.05 cubic inches, 50 centimeters, regardless of the number of chambers in the power source. The power source may not be capable of propelling the device, unassisted, at a speed exceeding 30 miles an hour, 48.28 kilometers an hour, on a level surface. The device must be equipped with a power drive system that functions directly or automatically only and does not require clutching or shifting by the operator after the drive system is engaged.

61-8-320. Right-of-way for bicycles. (1) The operator of a motor vehicle may not:

(a) intentionally interfere with the movement of a person who is lawfully riding a bicycle; or

(b) overtake and pass a person riding a bicycle unless the operator of the motor vehicle can do so safely without endangering the person riding the bicycle.

(2) The operator of a motor vehicle shall yield the right-of-way to a person who is riding a bicycle within a designated bicycle lane.

61-8-602. Traffic laws applicable to persons operating bicycles. Every person operating a bicycle shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of any other vehicle by chapter 7, this chapter, and chapter 9 except as to special regulations in this part and except as to those provisions of chapter 7, this chapter, and chapter 9 which by their very nature can have no application.

61-8-605. Riding on roadways. (1) As used in this section:

(a) "laned roadway" means a roadway that is divided into two or more clearly marked lanes for vehicular traffic; and

(b) "roadway" means that portion of a highway improved, designed, or ordinarily used for vehicular travel, including the paved shoulder.

(2) A person operating a bicycle upon a roadway at less than the normal speed of traffic at the time and place and under the conditions then existing shall ride as near to the right side of the roadway as practicable except when:

(a) overtaking and passing another vehicle proceeding in the same direction;

(b) preparing for a left turn at an intersection or into a private road or driveway; or

(c) necessary to avoid a condition that makes it unsafe to continue along the right side of the roadway, including but not limited to a fixed or moving object, parked or moving vehicle, pedestrian, animal, surface

hazard, or a lane that is too narrow for a bicycle and another vehicle to travel safely side by side within the lane.

(3) A person operating a bicycle upon a one-way highway with two or more marked traffic lanes may ride as close to the left side of the roadway as practicable.

(4) Persons riding bicycles upon a roadway shall ride in single file except when:

(a) riding on paths or parts of roadways set aside for the exclusive use of bicycles;

(b) overtaking and passing another bicycle;

(c) riding on a paved shoulder or in a parking lane, in which case the persons may ride two abreast; or

(d) riding within a single lane on a laned roadway with at least two lanes in each direction, in which case the persons may ride two abreast if they do not impede the normal and reasonable movement of traffic more than they would otherwise impede traffic by riding single file and in accordance with the provisions of this chapter.

(5) A bicycle, as defined in [61-8-102](#)(2)(b)(ii), is excluded from the provisions of subsections (2) and (3).

61-8-608. Bicycles on sidewalks. (1) A person operating a bicycle upon and along a sidewalk or across a roadway upon and along a crosswalk shall yield the right-of-way to any pedestrian and shall give audible signal before overtaking and passing any pedestrian.

(2) A person may not ride a bicycle upon and along a sidewalk or across a roadway upon and along a crosswalk where the use of a bicycle is prohibited by official traffic control devices.

(3) Except as provided in subsections (1) and (2), a person operating a vehicle by human power upon and along a sidewalk or across a roadway upon and along a crosswalk has all the rights and duties applicable to a pedestrian under the same circumstances.

Appendix J – Trail Maintenance Proposal, 5/14/09

FLATHEAD COUNTY WEED/PARKS/RECREATION & BUILDING MAINTENANCE

309 FFA DR. - Kalispell, MT 59901
(406) 758-5798 OR (406)758-5800
FAX: (406)758-5888

CONRAD ATHLETIC COMPLEX 758-5805



MEMORANDUM

To: Flathead County Board of Commissioners
From: Jed S. Fisher
Date: May 14th, 2009
Subject: Flathead County Trail Maintenance

As you requested, Dave Prunty, Jeff Harris and I met to develop a trails maintenance/costs proposal. The discussion focused on several relevant issues, including:

- Keeping annual operation & maintenance (O&M) costs to a minimum
- Maximizing existing County equipment, vehicles, etc.
- Identifying routine seasonal and repair/replacement maintenance activities
- Understanding that seasonal maintenance activities might be more appropriate for contract services as opposed to County staff maintenance
- Automatic inclusion of O&M into future overall trail costs.

As the present time there are approximately 14.5 miles of county trails. These include:

- | | | |
|---------------------|------------|------------------|
| • Lakeside/Somers | 1 mile | Constructed 2006 |
| • East Evergreen | 1 mile | Constructed 2008 |
| • Kila Path | 2 miles | Constructed 2008 |
| • Farm To Market | 1 mile | Constructed 2005 |
| • Helena Flats | 4.75 miles | Constructed 2006 |
| • Swan River Road | 0.5 miles | Constructed 2002 |
| • Whitefish Stage | 2 miles | Constructed 2000 |
| • Meridian | 1 mile | Constructed 2001 |
| • Great Northern #1 | 1 mile | Constructed 2001 |
| • Great Northern #2 | 1.25 miles | Constructed 2006 |

The average life cycle of a trail prior to resurfacing is about 12 years, with an annual average maintenance cost of approximately \$2,000 (Rails to Trails Conservancy, 2005). It is not clear whether up-front capital equipment costs are factored into the annual maintenance.

County trails have been constructed over time and routine maintenance/repair will follow construction (i.e. oldest trails will more likely need increased maintenance/repair and newer trails most likely won't need repair for years to come). All of the County trails are newer than eight years; resurfacing for 3.5 miles should be included in the County CIP for FY-13. CIP expenditures should also target 11 miles of resurfacing at FY-18.

For our purposes, we'll assume that capital equipment costs are amortized over the life of the equipment and included as part of the annual maintenance cost. Also, those CIP allocations will be available for trail resurfacing and/or replacement.

Applying these maintenance cost estimates it would cost the county around \$29,000 per year to maintain the existing trails system.

The following is a proposal for your consideration.

Basic O&M functions by season:

Winter Season

Frequency

- | | |
|--|------------------|
| <ol style="list-style-type: none"> 1. Snow removal for trails adjacent to schools
(4 to 5 miles total. One mile adjacent to each: Kila School;
Evergreen Elementary; West Valley, Smith Valley and Helena Flats Schools) 2. Roads system will be given priority over trail plowing 3. No other trails would be maintained for snow removal. | <p>As needed</p> |
|--|------------------|

Spring Season (all trails)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Sweeping of gravel and debris 2. Sign installation and replacement 3. Tree trimming/removal 4. Parking area up-keep | <p>Weekly at Somers Beach
Monthly on all others.
As needed
As needed
Once/Summer</p> |
|---|--|

Summer and Fall Season (all trails)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Weed control 2. Trail side mowing 3. Gravel replacement, pot hole and asphalt repairs 4. Respond to complaints | <p>Twice/Summer
Twice/Summer
Inspection annually and
repairs as needed
As needed</p> |
|--|--|

Capital and Annual O&M Costs

Capital Costs

Estimated Costs

- | | |
|--|---|
| <ul style="list-style-type: none"> • Kubota or Bobcat type implement with all attachments | <p>\$65,000 (specifications attached)</p> |
|--|---|

All other equipment (e.g. vehicles, sweepers, etc) is available within county resources. These costs are estimates, excluding the cost of the tractor and implements depending on the work load (excessive snowfall, trail repair, weed control etc). Chemicals, spray equipment including trucks, will be provided by the Weed/Parks/Recreation Department. Value of weed applications are \$50 an hour and \$20 an acre for chemical. Large equipment, trucks, front end loaders and asphalt will be provided by the Road & Bridge Department. Dump Truck costs per hour vary from \$25.00 to \$30.00 depending on the make, model and size. Grader costs per hour vary from \$30.00 to \$65.00 depending on the make, model and size. Loader costs per hour vary from \$20.00 to \$60.00 depending on the make, model and size. Broom/sweepers costs per hour vary from \$27.00 to \$65.00 depending on the make, model and size. It will take 1000 CY of gravel for one (1) mile 6 inches deep. The cost per yard is \$3.38 totaling \$3,380 per mile for material only. NOTE: Cost to overlay 10 foot wide one (1) mile long portion including labor, equipment, and materials is approximately \$32,500.00 not including overhead. Their paver can be narrowed down to pave an eight foot lane, but the piece of equipment itself is 9.5 to 10 feet wide, so anything like mailboxes and fences could outside of that 8 feet would get hit by the paver.

Planning and development of new trails will be provided by the Planning and Zoning Department.

Operational Costs

Winter Season O&M

•	PTE - 16 hours/week over 14 weeks (average \$15.00/hr.)	\$3,400
•	Focus on schools	\$6,000
•	Administration - Road & Bridge Department	<u>\$ 0</u>
	Subtotal	\$9,400
•	Amortized Kubota or Bobcat	<u>\$10,000</u>
	Subtotal	\$19,400

Spring Season (two months) O&M

•	PTE - 20 hrs/week over eight weeks (\$15.00/hr)	\$2,400
•	Fuel maintenance, signs, curbing and general costs	\$2,000
•	Operational equipment, supplies, etc.	\$ 0
•	Administration - Weed/Parks/Recreation Department	<u>\$ 0</u>
	Subtotal	\$4,400

Summer and Fall Season

•	PTE – 20 hrs/week over 16 weeks (average \$15.00/hr)	\$4,800
•	Fuel and maintenance, signs, curbing and general costs	\$3,000
•	Operational equipment, supplies	
•	Weed/Parks/Recreation Department responsibility	<u>\$ 0</u>
	Subtotal	<u>\$7,800</u>

Annual O&M Total	\$21,600
Total annual O&M and amortized Kubota	\$31,600

Full-time temporary employee(s) may need to be utilized. It could be difficult for either the Road Department or the Parks Department to effectively employ the needed personnel at the estimates given above. Other tasks could be assigned to this employee(s) within the respective departments.

It should be noted that we believe this commitment and allocation could be an incentive for other groups to contribute, or, as in-kind for any available grants.

Please let us know when we can address this proposal with you.

Thank you.

Jed S. Fisher
Weed/Parks

CC: Jeff Harris
CC: Dave Prunty

Appendix K – Design Guidance for Backcountry Trails

Flathead County should develop design guidance for each trail type to be developed. Following is an example of design guidance provided in the Trail Runs Through It Master Plan, September 2006, for the backcountry singletrack trails to be developed near the City of Whitefish.

- Follow good design practices to create a safe, interesting, low maintenance, and functional trail system.
- The trail system should contain a combination of small and large loop trails throughout the network.
- Trailheads should provide adequate parking to avoid congestion and should be located away from heavy traffic and designed for safety.
- Parts of some trails near trailheads will be wheelchair accessible.
- The level of difficulty on the trail will vary from easy to strenuous with the easy to moderate levels being located more conveniently to the more heavily used trailheads. Trail segments should have varying degrees of difficulty
- As much of the natural habitat as possible shall be retained, and natural experience and the conservation of open space shall be promoted.
- The trail should be wider with developed amenities near heavily used trailheads that are closer to town, and should be more primitive and narrow in more remote areas.
- There should be a varied terrain with undulations, grade reversals and meanders to make the trail interesting.
- The trail should have clear signs at the trailheads with maps and rules.
- Switchbacks should have gentle curves and ride-able radii for bicycles.
- Sensitive areas should be avoided when possible. Wetlands and fragile areas, especially in the Swift Creek area, need to be protected.
- Erosion should be prevented, especially on steep grades and near stream crossings.
- Water quality should be maintained. Seasonal closing of some trails in the spring to prevent erosion should be considered.
- Wildlife habitat and sensitive areas should be identified and mitigated. The trail should be aligned so as not to disturb wildlife. Some areas may have seasonal closures to protect wildlife habitat.
- Natural vegetation should be protected through weed control and replanting with native species.
- Good trail design will minimize environmental impact and should include areas of ecological interest

Horses

To reduce conflict, equestrians may be subject to the following management guidelines:

- Design parking areas to accommodate horses and horse trailers in spaces separate from other trail users. This area would include hitching rails for horses.
- For at least the first quarter of a mile from the trail head, horses should be on a separate trail before merging with the main trail.
- Post signs in parking areas to spread manure.
- Horses may be restricted in ecologically sensitive areas.
- The number of horses in a group may be restricted
- Riders should be kept to a walking pace especially in heavily used areas.
- Equestrian groups should be involved in trail maintenance in areas of the trail that are heavily used by horses.
- Commercial horseback riding operations should develop a trail maintenance, cleanup and weed control plan for the trails they frequently use.
- There should be separate watering holes for stock and people.

Appendix L – Survey and Summary of Responses

Flathead County Pathways Survey Questions

- 1) Do you currently use Flathead County's pathways, including on-street bicycle/pedestrian routes (bike lanes, road shoulders) and/or separate multi-use trails? (yes/no)
- 2) If you could improve one thing about Flathead County's pathways system, what would it be?
- 3) Using bicycle and pedestrian pathways developed in the future, where would members of your household most likely go? Please circle no more than three (3).
 - a. Parks and recreation areas
 - b. Public lands
 - c. Municipal downtown areas
 - d. Local shopping areas
 - e. Work
 - f. Schools
 - g. Adjacent communities
 - h. Other places – please specify below
 - i. We'd like new pathways as recreation destinations
 - j. We wouldn't use pathwaysOther: _____
- 4) Are you aware of any important and timely opportunities to create new pathways in the county? Please describe.
- 5) Which new pathways should be developed first? Please list up to three.

Responses from online trails survey

- 1) Do you currently use Flathead County's pathways, including on-street bicycle/pedestrian routes (bike lanes, road shoulders) and/or separate multi-use trails?

Yes – 87.2%, 109

No - 12.8%, 16

answered question - 125

skipped question - 0

- 2) If you could improve one thing about Flathead County's pathway system, what would it be?
(Detailed responses)

answered question - 114

skipped question - 11

- 3) Using bicycle and pedestrian pathways developed in the future, where would members of your household most likely go? Please circle no more than three (3).

Parks and recreation areas – 71.5%, 88

Municipal downtown areas – 41.5%, 51

Local shopping areas – 30.9%, 38

Work – 31.7%, 39

Schools – 28.5%, 35

Adjacent Communities – 45.5%, 56

We would like new pathways as recreations destinations – 65.0%, 80

We would not use pathways – 2.4%, 3

Other (please specify) - 12

answered question - 123

skipped question - 2

4) Are you aware of any timely areas to make new off-street pathways in the county, if so where?

(Detailed responses)

answered question - 82

skipped question - 43

5) Which new pathways should be developed first? Please list up to three.

answered question - 97

skipped question - 28

Responses from trails component of online parks and recreation survey

1) Do you currently use Flathead County's pathways, including on-street bicycle/pedestrian routes (bike lanes, road shoulders) and/or separate multi-use trails?

Yes - 76.6%, 301

No - 23.4%, 92

answered question - 393

skipped question - 9

2) If you could improve one thing about Flathead County's pathway system, what would it be?

(Detailed responses)

answered question - 285

skipped question - 117

3) Using bicycle and pedestrian pathways developed in the future, where would members of your household most likely go? Please circle no more than three (3).

Parks and recreation areas - 71.7%, 279

Municipal downtown areas - 31.6%, 123

Local shopping areas - 19.3%, 75

Work - 20.3%, 79

Schools - 22.4%, 87

Adjacent Communities - 30.6%, 119

We would like new pathways as recreations destinations - 53.2%, 207

We would not use pathways - 7.2%, 28

Other (please specify) - 34

answered question - 389

skipped question - 13

4) Are you aware of any timely areas to make new off-street pathways in the county, if so where?

(Detailed responses)

answered question - 139

skipped question - 263

5) This question was not included in the Parks survey.

Responses from Workshops, November 2008

1) Do you currently use Flathead County's pathways, including on-street bicycle/pedestrian routes (bike lanes, road shoulders) and/or separate multi-use trails?

Yes – 28

Not much – 4

No - 1

3) Using bicycle and pedestrian pathways developed in the future, where would members of your household most likely go? Please circle no more than three (3).

Parks and recreation areas – 19

Public Lands - 19

Municipal downtown areas – 11

Local shopping areas – 6

Work – 10

Schools – 6

Adjacent Communities – 14

We would like new pathways as recreations destinations – 11

We would not use pathways – 0

Other places - River corridor trails, equestrian trails, Flathead Lake, water trails

Responses to questions 2, 4 and 5 are combined below

Suggested routes for new pathways

Connecting communities

*Columbia Falls to Whitefish – 10 responses

*Columbia Falls to Kalispell – 9

*Whitefish to Kalispell - 9

*Columbia Falls to Glacier (or part, usually including Badrock Canyon) – 9

*Somers to Kalispell (complete rail trail) – 6

*Somers to Bigfork - 5

*Somers to Lakeside - 3

*Big Fork to Woods Bay - 4

-Columbia Falls through Creston to Bigfork

-North Valley to Kalispell

-Extend rail trail from Kila to Marion

Greenways

-Stillwater River trail from Lawrence Park to west of Whitefish (start with section from the park to Reserve) – 2

Recreational trails

-Water trail from Whitefish Lake to Flathead Lake - 2

-Foy's to Blacktail, w/community connections (Lakeside, Foy's Lake Rd, rail-trail)- 9

-Bigfork area loop trail(s) (Swan River Road, Wild Mile, Hwy 209, Chapman Hill Rd

-Connect to Owen Sowerwine Natural Area - 4

Destination trails

-Circumnavigate Flathead Lake – 3

Connections within communities (refer some to city planners)

- Conrad to Old Steel Bridge
- Connect River Road to the schools and shopping avoiding the hwy bridge
- Red Bridge in Columbia Falls - 3
- A pathway along Hwy 2 from Reserve to K-Mart, for kid safety
- Lakeside/Somers area trails

General suggestions for additions to the pathway system

- Make connections (to communities, existing paths, etc) – 10
- Need more pathways – 10
- Develop pathways in separate rights-of-way – 4
- Routes to school - 2
- Safe bike pathways along highways (intra-community arterials for safety) - 4
- Connect the 3 communities on secondary roads, NOT along 93 or La Salle or 40
- Finish the paths that have been started to gain more support
- Develop more railroad beds as trails
- An increased valley-wide system to develop recreation, tourism and green travel
- Develop recreation destination pathways
- Equestrian trails for transportation
- Dirt trails alongside paved multi-use trails.
- Could look at state lands
- Open a few trails to mountain bikes in GNP and the Bob
- Prioritize routes that serve multiple functions, and serve the most people - 2
- Develop commuting/touring pathways before recreational trails, unless a riverside trail is possible along the Whitefish, Stillwater and/or Flathead Rivers.
- Include bike lanes, at least, in current road construction plans
- Get plan in place ASAP (it can be refined later) so we qualify for bike trails when federal roads are upgraded.
- Keep this process moving as fast as possible so that a Transportation Master Plan can be adopted so no more hwy are built without bike-ped facilities.

Pathway improvements

- 3' minimum shoulders on all new and rebuilt roads
- Regularly sweep the wide shoulder on Hwy 93 between Kalispell and Whitefish, and sign it as a bikeway to attract commuters from Whitefish Stage Road.
- Use shoulders on hways 93, 40 and 2 to connect Columbia falls and Whitefish; sign shoulder as 'bike lane' and 'no parking'. No more rumble strips.
- Need painted crossings and signage on roads where bike paths cross; motorists not aware of crossings
- Signage and mileage markers needed on pathways, and readily available maps - 4
- Lighting and foliage in areas where needed for safer night and remote riding.
- Alert/educate drivers to biker presence, and to not use bike lanes as turning lanes - 2
- Create an adopt-a-trail program
- Have the county pay the CTEP match money

Other opportunities

- Bridge over Stillwater River, near college
- Acreage for conversion next to Lake near Adams
- Saddlehorn (Averills) between Bigfork and Woods Bay
- Adventure Cycling Association is pursuing a National Bikeway System. Part of their system comes through the Flathead Valley via Hwy 93 from Eureka to Kalispell then out via Hwy 2 to Glacier Park.

- A Trail Runs Through It (Whitefish) - 2
- Fish Trails (Whitefish)
- Connect to municipalities out of the county (Lincoln, Eureka, etc.)
- Consider looking at creating a right-of-way for a light rail system from Somers to Kalispell and points north.

Appendix M – Proposed Trail Network Map